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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/809,709

03/26/2004

Shuichi Mafune

12065-0011

8125

22902

7590

12/14/2006

CLARK & BRODY

1090 VERMONT AVENUE, NW

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WASHINGTON, DC 20005

EXAMINER

WARTALOWICZ, PAUL A

ART UNIT

PAPER NUMBER

1754

DATE MAILED: 12/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/809,709

Applicant(s)

MAFUNE ET AL.

Examiner

Paul A. Wartalowicz

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 5-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/803963. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would be obvious that even though Application No. 10/803963 contains a noble element limitation and Application No. 10/809709 does not, the scope of claim 1 in Application No. 10/809709 is encompassed by the scope of claim 1 in Application No. 10/803963 because of the recitation in line 3 of claim 1 in Application No. 10/809709 wherein "a powdery starting material containing". This

Art Unit: 1754

recitation demonstrates open language and therefore is not limited to the items following said recitation as being contained within a powdery starting material.

As to the limitation that the amorphous substance is a precipitation product is obtained by the claimed steps, it appears that the instantly claimed product by process is the same as that which is claimed (precipitation product). When the examiner has found a substantially similar product as in the applied prior art, the burden of proof is shifted to the applicant to establish that their product is patentably distinct and not the examiner to show the same process as making. *In re Brown*, 173 USPQ 685 and *In re Fessman*, 180 USPQ 324.

Additionally, if the limitation of adding a reducing agent are necessitated, Toshima et al. teaches a process for producing a perovskite precursor comprising a nickel precipitate (transition element, Throughout document, particularly col. 6, lines 1-5) comprising mixing an alkaline aqueous solution with an aqueous solution of nickel salt and a hydrazine reducing agent for the purpose of forming a precipitate without forming any hydroxide as an intermediate (Throughout document, particularly col. 6, lines 35-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide forming a precipitate comprising mixing an alkaline aqueous solution with an aqueous solution of nickel salt and a hydrazine reducing agent in 10/803963 in order to form a precipitate without forming any hydroxide as an intermediate (Throughout document, particularly col. 6, lines 35-67) as taught by Toshima et al.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 2, and 5-8 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Golden (U.S. 5977017).

Golden teaches a method of making a perovskite (col. 1, lines 10-17) comprising heat-treating a precipitation product of rare earth elements and transition elements at a temperature of 700° (Throughout document, particularly col. 6, lines 1-30, Example 7).

If the precipitate is not amorphous, it would be obvious to one of ordinary skill that the precipitate is amorphous because the precipitate is based on the homogenous mixture is heated only to form a precipitate and then further heated to produce a perovskite structure.

As to the limitation that the amorphous substance is a precipitation product is obtained by the claimed steps, it appears that the instantly claimed product by process is the same as that which is claimed (precipitation product). When the examiner has found a substantially similar product as in the applied prior art, the burden of proof is shifted to the applicant to establish that their product is patentably distinct and not the examiner to show the same process as making. *In re Brown*, 173 USPQ 685 and *In re Fessman*, 180 USPQ 324.

As the limitations wherein the noble metal element-containing perovskite complex oxide exhibits certain properties, the prior art of record teaches a substantially similar process of making to that of the claimed invention such that the properties of the product made by said process of the prior art of record are substantially similar to that of the claimed invention. Some evidence of this is that the BET surface areas of perovskites in Golden exceed 10 m²/g (Throughout document, Examples 7 and 11).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 2, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Golden (U.S. 5977017) in view of Toshima et al. (U.S. 6632524).

Golden teaches a method of making a perovskite (col. 1, lines 10-17) comprising heat-treating a precipitation product of rare earth elements and transition elements at a temperature of 700° (Throughout document, particularly col. 6, lines 1-30, Example 7). The BET surface areas of perovskites in Golden exceed 10 m²/g (Throughout document, Examples 7 and 11).

Golden fails to teach the claimed limitations of how the precipitate is formed.

However, Toshima et al. teaches a process for producing a perovskite precursor comprising a nickel precipitate (transition element, Throughout document, particularly col. 6, lines 1-5) comprising mixing an alkaline aqueous solution with an aqueous

Art Unit: 1754

solution of nickel salt and a hydrazine reducing agent for the purpose of forming a precipitate without forming any hydroxide as an intermediate (Throughout document, particularly col. 6, lines 35-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide forming a precipitate comprising mixing an alkaline aqueous solution with an aqueous solution of nickel salt and a hydrazine reducing agent in Golden in order to form a precipitate without forming any hydroxide as an intermediate (Throughout document, particularly col. 6, lines 35-67) as taught by Toshima et al.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Golden (U.S. 5977017) in view of Toshima et al. (U.S. 6632524) and Ward et al. (U.S. 6827917)

Golden teaches a process as described above in claim 1.

Golden fails to teach that the precipitant is an alkaline carbonate or carbonate containing ammonium ions.

However, Ward teaches a method for making a mixed perovskite phase (Throughout document, particularly col. 2) comprising adding ammonium carbonate to carry out precipitation (Throughout document, particularly col. 3, lines 1-10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide adding ammonium carbonate in Golden in order to carry out precipitation (Throughout document, particularly col. 3, lines 1-10) of a precursor of a perovskite as taught by Ward et al.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Golden (U.S. 5977017) in view of Toshima et al. (U.S. 6632524) and Swinkels et al. (U.S. 4263164).

Golden teach a process for making a perovskite as described above in claim 1. Golden fails to teach that the precipitant is a combination of ammonia and carbon dioxide.

Swinkels et al. teach a process for of forming a precipitate comprising a lanthanum metal (col. 1, lines 5-8) wherein carbon dioxide and ammonia in combination are used as a precipitant for the purpose of obtaining a precipitate which is easily separated in a customary manner (col. 2, lines 16-22).

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide wherein carbon dioxide and ammonia in combination are used as a precipitant in Golden in order to obtain a precipitate which is easily separated in a customary manner (col. 2, lines 16-22) as taught by Swinkels et al.

Response to Arguments

Applicant's arguments with respect to claims 1, 2, and 5-8 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 9/27/06 have been fully considered but they are not persuasive.

Applicant argues that the comparative evidence set forth in the specification offers further substantiation of the patentability of claim 1; specifically that examples 8-12 show the production of a perovskite having an unexpectedly high specific surface area and that this improvement is attributed to the use of a reducing agent in the method of making the precursor substance.

However, at least in the specified examples, the variable being manipulated is the ratio of starting materials comprising transition metals and rare earth metals, respectively (i.e. elemental lanthanum, strontium, and iron in example 11). All the examples pointed out by applicant use a reducing agent. Additionally, the prior art of record teaches a perovskite have a BET surface area greater than 10 m²/g.

Applicant argues that the use of a reducing agent in the manufacture of the precursor substance to obtain an improved perovskite is not obvious over the '963 application because there is no motivation for adding the reducing agent.

However, the claim does not require that the precipitated substance be obtained by the method limitations disclosed. It appears that the instantly claimed product by process is the same as that which is claimed (precipitation product). When the

Art Unit: 1754

examiner has found a substantially similar product as in the applied prior art, the burden of proof is shifted to the applicant to establish that their product is patentably distinct and not the examiner to show the same process of making. *In re Brown*, 173 USPQ 685 and *In re Fessman*, 180 USPQ 324. In the instant case, the applicant has argued lack of adding a reducing agent but has failed to establish that their precipitation product is patentably distinct.

Art Unit: 1754

Conclusion

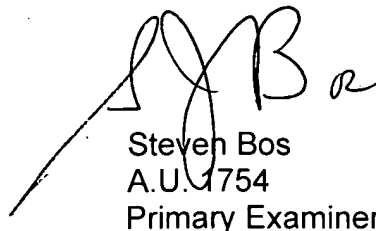
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul A. Wartalowicz whose telephone number is (571) 272-5957. The examiner can normally be reached on 8:30-6 M-Th and 8:30-5 on Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (571) 272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Paul Wartalowicz
December 7, 2006



Steven Bos
A.U. 1754
Primary Examiner